

Application No.: 10/756,982
Amendment Dated: May 2, 2006
Reply to Office Action of: January 10, 2006

MAT-8498US

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-4. (Cancelled).

5. (Currently Amended) An antenna for receiving a current, comprising:

a flat-plate ground plane;

a first antenna element with its one end connected to a feeding point and its intermediate portion folded by a plurality of times, which is extended upward from said ground plane; and

a second antenna element with its one end connected to the other end of said first antenna element and with the other end thereof connected to said ground plane, which has an intermediate portion extended upward from said ground plane, and

wherein said first and second antenna elements each have an electrical length of over $\frac{1}{4}$ wavelength relative to a frequency band of said current,

a substrate extended upward from said ground plane,

wherein the intermediate portion of said second antenna element is disposed in a symmetrical relation with the intermediate portion of said first antenna element,

wherein the intermediate portion of said first antenna element and the intermediate portion of said second antenna element are arranged symmetrically opposed to each other,

wherein the intermediate portion of said first antenna element is arranged on one surface of said substrate, and

Application No.: 10/756,982
Amendment Dated: May 2, 2006
Reply to Office Action of: January 10, 2006

MAT-8498BUS

the intermediate portion of said second antenna element is arranged on the other surface opposed to the substrate surface where the intermediate portion of said first antenna element is disposed.

6. (Original) The antenna of claim 5, further comprising:

a conductive plate,

wherein said conductive plate is arranged on one surface of said substrate being parallel to said ground plane, and

the other end of said first antenna element and one end of said second antenna element are connected to each other via said conductive plate.

7. (Original) The antenna of claim 6,

wherein said first antenna element and said second antenna element are formed of metal plates which are integral with said conductive plate.

8. (Currently Amended) An antenna, comprising:

a flat-plate ground plane;

a first antenna element with its one end connected to a feeding point and its intermediate portion folded by a plurality of times, which is extended upward from said ground plane; and

a second antenna element with its one end connected to the other end of said first antenna element and with the other end thereof connected to said ground plane, which has an intermediate portion extended upward from said ground plane, and

a substrate extended upward from said ground plane,

wherein the intermediate portion of said second antenna element is disposed in a symmetrical relation with the intermediate portion of said first antenna element,

Application No.: 10/756,982
Amendment Dated: May 2, 2006
Reply to Office Action of: January 10, 2006

MAT-8498US

wherein the intermediate portion of said first antenna element and the intermediate portion of said second antenna element are arranged symmetrically opposed to each other,

wherein the intermediate portion of said first antenna element is arranged on one surface of said substrate, and

the intermediate portion of said second antenna element is arranged on the other surface opposed to the substrate surface where the intermediate portion of said first antenna element is disposed,

a plurality of parasitic antenna elements having an intermediate portion same in shape as the intermediate portion of said first antenna element,

wherein each of said parasitic antenna elements are arranged in parallel relation to the surface where said first antenna element and said second antenna element are disposed, and

one end of said parasitic antenna element is connected to said ground plane with the other end opened.

9-10. (Cancelled)

11. (Previously Presented) The antenna of claim 5,

wherein said first and second antenna elements each have an electrical length of $5/4$ wavelength relative to said frequency band of said current.

12. (Previously Presented) The antenna of claim 6,

wherein said first and second antenna elements each have an electrical length of $5/4$ wavelength relative to said frequency band of said current.

13. (Previously Presented) The antenna of claim 7,

wherein said first and second antenna elements each have an electrical length of $5/4$ wavelength relative to said frequency band of said current.

Application No.: 10/756,982
Amendment Dated: May 2, 2006
Reply to Office Action of: January 10, 2006

MAT-8498US

14. (Previously Presented) The antenna of claim 8,

wherein said first and second antenna elements each have an electrical length of $5/4$ wavelength relative to said frequency band of said current.